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April 3, 2001

Date

*Rhonda Fairchild*

Rhonda Fairchild

*#3*

PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of:  
Rajindra Aneja

Serial No.: Unknown

Former Serial No.: 08/872,222

Filed: April 3, 2001

For: MOLECULAR PROBES AND  
MODULATORS FOR PI-PLC AND PI 3  
KINASE

Group Art Unit: 1626

Examiner: Ambrose, M.G.

Atty. Dkt. No.: 4020.000499

Assistant Commissioner for Patents  
Washington, D.C. 20231

**DECLARATION OF RAJINDRA ANEJA  
UNDER 37 C.F.R. § 1.131**

**I, RAJINDRA ANEJA, HEREBY DECLARE AS FOLLOWS:**

1. I am the sole inventor of the subject matter disclosed and claimed in the captioned patent application.
2. I am the sole inventor of the subject matter disclosed and claimed in U.S. Application Serial No. 08/872,222, to which the present application claims priority.

00826396-04004

3. I am a citizen of the United States and reside in Ithaca in the state of New York.

4. I am Director of Nutrimed Biotech, the assignee of the captioned patent application.

5. I have reviewed each of the Official Actions issued by the U.S. Patent and Trademark Office (P.T.O.) in U.S. Application Serial No. 08/872,222. I disagree with the rejections that remained at the conclusion of examination of U.S. Application Serial No. 08/872,222.

6. I understand that the claims that did not progress to allowance in U.S. Application Serial No. 08/872,222 are being filed in the captioned patent application and that any rejections remaining at the conclusion of examination of U.S. Application Serial No. 08/872,222 should be addressed in this application.

7. I understand that in an Advisory Action in U.S. Application Serial No. 08/872,222 dated October 12, 2000, the P.T.O. raised the possibility that one or more prior art-based rejections could be entered based upon four newly-cited references.

8. The four references attached to the Advisory Action are: Thum *et al.*, cited as a 1997 ACS reference to an original article by Thum *et al.* published as *Tetrahedron Lett.*, 37(50):9017-9020, 1996; Wang and Chen, cited as a 1996 ACS reference to an original article by Wang and Chen published as *J. Org. Chem.*, 61(17):5905-5910, 1996; Reddy *et al.*, cited as a 1996 ACS reference to an original article by Reddy *et al.* published as *J. Org. Chem.*, 60(11): 3385-3390,

1995; and Bruzik and Kubiak, cited as a 1995 ACS reference to an original article by Bruzik and Kubiak published as *Tetrahedron Lett.*, 36(14): 2415-2418, 1995.

9. I do not believe that the references by Wang and Chen, Reddy *et al.* or Bruzik and Kubiak disclose the phosphoinositide analogues of the present invention, which are based on phosphatidylinositolphosphate, wherein the 2-OH is rendered non-nucleophilic by derivatization or replacement or wherein a reporter group or conjugand is incorporated in the fatty acyl or inositol residue.

10. The cited Thum *et al.* article was attached to the Advisory Action as a 1997 ACS reference to an original article by Thum *et al.* published in the journal *Tetrahedron Lett.*, in 1996. The original Thum *et al.* reference was published in December 1996 (**Exhibit A**).

11. The cited Wang and Chen article was attached to the Advisory Action as a 1996 ACS reference to an original article by Wang and Chen published in the journal *J. Org. Chem.*, in 1996. The original Wang and Chen reference was published in August 1996 (**Exhibit B**).

12. I am providing the present declaration and attached documentary evidence to demonstrate that the invention disclosed and claimed in U.S. Application Serial No. 08/872,222 and in the captioned patent application was made in the United States prior to December 1996 and prior to August 1996. That is, that the invention disclosed and claimed in my applications was made in the United States prior to the publication date of each of the original articles cited by the P.T.O. as Thum *et al.*, 1996 and Wang and Chen, 1996.

13. Evidence of the fact that the invention of U.S. Application Serial No. 08/872,222 and the captioned patent application was made in the United States prior to August 1996, the earlier date of the two cited references, is already available to the P.T.O.

14. This evidence available to the P.T.O. takes the form of provisional application Serial No. 60/019,651, to which U.S. Application Serial No. 08/872,222 and the captioned patent application each claim priority. Provisional application Serial No. 60/019,651 was filed with the U.S. Patent and Trademark Office on June 11, 1996, *i.e.*, prior to the August 1996 date of the earlier of the two cited references. The studies embodied in provisional application Serial No. 60/019,651 were conducted in the United States.

15. Based upon the foregoing evidence, I declare that the invention of U.S. Application Serial No. 08/872,222 and the captioned patent application was made in the United States prior to the August 1996 publication date of the original article by Wang and Chen, 1996, the earlier of the foregoing references cited by the P.T.O.

16. I hereby declare that all statements made herein of my knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.

March 19, 2001

Date

Rajindra Aneja

Rajindra Aneja

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TDE040-96E92860

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DIALOG(R)File 34:SciSearch(R) Cited Ref Sci  
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05426844 Genuine Article#: VY073 No. References: 23

Title: SYNTHESIS OF A PHOTOAFFINITY ANALOG OF PHOSPHATIDYLINOSITOL  
3,4-BISPHOSPHATE, AN EFFECTOR IN THE PHOSPHOINOSITIDE 3-KINASE  
SIGNALING PATHWAY

Author(s): THUM O ; CHEN J; PRESTWICH GD

Corporate Source: UNIV BONN, INST ORGAN CHEM & BIOCHEM/D-53121

BONN//GERMANY/; SUNY STONY BROOK, DEPT CHEM/STONY BROOK//NY/11794

Journal: TETRAHEDRON LETTERS , 1996 , V37, N50 (DEC 9), P9017-9020

ISSN: 0040-4039

Language: ENGLISH Document Type: ARTICLE (Abstract Available)

0040-4039(199612)37:50;1-0

DIALOG(R)File 34:SciSearch(R) Cited Ref Sci  
(c) 2001 Inst for Sci. All rts. reserv.

05160310 Genuine Article#: VE272 Number of References: 29

**Title: SYNTHESIS OF THE D-3 SERIES OF PHOSPHATIDYLINOSITOL PHOSPHATES** (  
Abstract Available)

Author(s): **WANG DS ; CHEN CS**

Corporate Source: UNIV KENTUCKY, COLL PHARM, DIV MED CHEM &  
PHARMACEUT/LEXINGTON//KY/40536; UNIV KENTUCKY, COLL PHARM, DIV MED CHEM &  
PHARMACEUT/LEXINGTON//KY/40536

Journal: JOURNAL OF ORGANIC CHEMISTRY, 1996 , V61, N17 (AUG 23), P  
5905-5910

ISSN: 0022-3263

Language: ENGLISH Document Type: ARTICLE

Abstract: The 3-mono-, 3,4-bis-, and 3,4,5-trisphosphates of  
L-alpha-phosphatidyl-D-myo-inositol have been synthesized in their  
optically active forms from the two enantiomers of  
1,2:5,6-di-O-cyclohexylidenemyo-inositol. These chiral precursors were  
prepared by a facile biocatalytic resolution, in which the 8-butyryl  
ester of the racemic compound was subjected to enantioselective  
hydrolysis by porcine pancreatic lipase in a biphasic system. The  
overall yield from individual chiral precursors ranged from 32% for the  
3,4,5-trisphosphate to 39% for the monophosphate.

0986396-040304